

We Claim:

1. An apparatus for interactively timing an amateur sports game such that audio outputs are generated at appropriate times in said game and in response to initiation by one or more players, comprising:

- (a). a storage device for storing a plurality of audio files and a set of predetermined times; and
- (b). a timer to keep track of game time; and
- (c). a remote control means for said players to start and stop said timer by wireless communication; and
- (d). an electro-acoustics device; and
- (e). a processor which:
 - (1) starts and stops said timer when said remote control means are activated; and
 - (2) selects said audio files at said predetermined times; and
 - (3) passes said audio files to said electro-acoustics device thereby generating audible sounds,

whereby voice announcements such as "1 minute to go," "Time out," and game-related sounds such as crowd noise and horn sounds are made at appropriate times in said sports game to inform said players of key time factors and add to the atmosphere and excitement at key moments in said game, and

whereby said players by said voice announcements are kept informed of said key time factors without the need for large expensive displays and the distraction caused by looking away from said game to glance at said displays; and

whereby said players can easily control timing functions such as time-out, time-in, and other functions remotely without leaving their game positions.

2. The apparatus of claim 1 additionally comprising a second timer to keep track of time for predefined short time intervals within said game and generate additional appropriate voice announcements,

whereby said players are kept informed of additional time factors such as time remaining on a twenty five second shot clock in basketball and a twenty five second limit for snapping or free kicking after "ready for play" in football.

3. The apparatus of claim 1 wherein said remote control means comprise one or more switches, worn on the person of said players, that control said timer by transmitting change-of-state by wireless communication and further comprise a receiver which, upon detection of the change-of-state signal, causes said processor to start or stop said timer, whereby said timer is controlled easily and remotely by said players without leaving their game positions.

4. The apparatus of claim 1 wherein said remote control means comprise a microphone and voice recognition software in said processor, which upon recognition of predetermined spoken words causes said processor to start or stop said timer, whereby said timer is controlled by the voice of said players, and whereby said players can initiate time-outs and other timing actions without physically contacting switches.

5. The apparatus of claim 1 wherein said remote control means comprise a whistle or other acoustic tone generator and a microphone and frequency detection software in said processor, which upon detection of said whistle or said other acoustic tone causes said processor to start or stop said timer, whereby said timer is controlled by said whistle or said other acoustic tone generator worn on the person of said players, and whereby said players can initiate time-outs and other timing actions with the simple tone of said whistle.

6. The apparatus of claim 1 wherein said audio files are stored digitally.

7. The apparatus of claim 1 additionally comprising a visual display that displays remaining time on said timer,

whereby said players can read time remaining on said visual display between said announcements.

8. An apparatus for interactively timing an amateur sports game such that voice announcements are generated at appropriate times in said game and in response to initiation by one or more players, comprising:

(a). a storage device for storing a plurality of voice files and a set of predetermined times; and

(b). a timer to keep track of game time; and

(c). a remote control means for players to start and stop said timer by wireless communication; and

(d). an electro-acoustics device; and

(e). a processor which:

(1) starts and stops said timer when said remote control means are activated; and,

(2) selects said voice files at said predetermined times; and

(3) passes said voice files to said electro-acoustics device thereby generating voice announcements.

9. The apparatus of claim 8 additionally comprising a second timer to keep track of time for predefined short time intervals within said game and generate additional appropriate voice announcements.

10. The apparatus of claim 8 wherein said remote control means comprise one or more switches worn on the person of said players, that control said timer by transmitting change-of-state by wireless communication and further comprise a receiver which, upon detection of the change-of-state signal, causes said processor to start or stop said timer.

11. The apparatus of claim 8 wherein said remote control means comprise a microphone and voice recognition software in said processor, which upon recognition of predetermined spoken words causes said processor to start or stop said timer.

12. The apparatus of claim 8 wherein said remote control means comprise a whistle or other acoustic tone generator and a microphone and frequency detection software in said processor, which upon detection of said whistle or other acoustic tone causes said processor to start or stop said timer.

13. The apparatus of claim 8 additionally comprising a visual display that displays time remaining on said timer.

14. A method for interactively timing an amateur sports game such that audio outputs are generated at appropriate times in said game and in response to initiation by one or more players, comprising:

- (a). storing audio files and a set of predetermined times; and
- (b). providing a timer to keep track of game time; and
- (c). providing a remote control means for said players to start and stop said timer by wireless communication; and
- (d). providing an electro-acoustics device; and
- (e). providing a processor which:
 - (1) starts and stops said timer when said remote control means are activated; and
 - (2) selects said audio files at said predetermined times; and
 - (3) passes said audio files to said electro-acoustics device thereby generating audible sounds.

15. The method of claim 14 additionally comprising providing a second timer to keep track of time for predefined short time intervals within said game and generate additional appropriate audio announcements.

16. The method of claim 14 wherein said remote control means comprise providing one or more switches worn on the person of players and spectators that control said timer by transmitting change-of-state by wireless communication and further comprise a receiver which, upon detection of the change-of-state signal, causes said processor to start or stop said timer.

17. The method of claim 14 wherein said remote control means comprise providing a microphone and voice recognition software in said processor, which upon recognition causes said processor to start or stop said timer.

18. The method of claim 14 wherein said remote control means comprise providing a whistle or other acoustic tone generator and a microphone and frequency detection software in said processor, which upon detection causes said processor to start or stop said timer.

19. The method of claim 14 wherein said audio files are stored digitally.

20. The method of claim 14 additionally providing a visual display that displays remaining time on said timer.

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